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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES
Attorney Docket No. 006918.00003

In re U.S. Patent Application of Thomas Muller *et al.*	
Application No. 09/885,130	Confirmation No. 4700
Filed: June 21, 2001	Examiner: Jacob M. Meek
For: Device Synchronisation Over A Network	Group Art Unit: 2637

BRIEF ON APPEAL

MS: Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §41.37, Appellant submits this Appeal Brief to the Board of Patent Appeals and Interferences in response to the Final Rejection mailed on May 3, 2005 and the Advisory Action mailed September 23, 2005.

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I. Real Party in Interest

The real party in interest is Nokia Mobile Phones Ltd., the owner of the enti e right, title and interest in and to the subject application.

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II. Related Appeals and Interferences

There are no appeals or interferences related to the subject appeal.

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III. Status of the Claims

Claims 1-44, which are involved in the appeal, stand finally rejected and are found in the Appendix. No claim is allowed.

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IV. Status of Amendments

On September 6, 2005, a request to amend the title along with a request for reconsideration of the Final Office Action was filed. No after final amendments to the claims were requested. The Advisory Action mailed September 23, 2005 indicated that the rejection was maintained and that the amendment to the title would not be entered.

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V. Summary of Claimed Subject Matter

Aspects of the present invention, which relates to claims 1-44, are directed to a transmitter, a receiver, a transceiver, a network which comprises a transmitting device and a receiving device and method of using the same. (Specification, pg. 2, ln. 3 -- pg 3, ln. 25). Figures 1 and 2 illustrates an embodiment with a transmitting device 2 and a receiving device 6 that may be operated in connection with a Bluetooth low power frequency hopping scheme.

In an embodiment, the transmitter 2 and the receiver 6 share a common time reference 20 that has instances i(x) and j(y), respectively, where instances in both the transmitter 2 and the receiver 6 are synchronised. Thus, instance i(1) of the common time reference 20 in transmitter 2 corresponds to instance j(1) of the common time reference 20 in receiver 6. In an embodiment, the common time reference may be the common time reference used in Bluetooth and, for example, the instances may range between 0 and some upper value such as 268,435.455. In an embodiment, the transmitter 2 reads a value RT(1) of the real time clock 4 and the value RT(1) along with an identification of an instance i(1) of the common time reference – which represents the time the value RT(1) was read with reference to the common time. At some later instance the value RT(1) and the instance i(1) is transmitted. The receiver 6 receives the value RT(1) along with identification of the instance j(1) (because i(1) and j(1) are both part of the same common time reference and therefore occur simultaneously) and at some later instance j(1+n) the receiver 6 sets the value of the real time clock 8 to be the value RT(1) + an offset. The offset equals a time period between the instance j(1) and the instance j(1+n). Thus, the receiver 6 adds the determined delay to the value RT(1) of the real time clock 8.

Turning to the claims, independent claim 1 recites a "means for reading a real time clock at an identified instance of the common time reference" and the structure relating to this means is

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disclosed in Figure 7 and discussed in the substitute specification at pg. 14, ln. 31 – pg. 15, ln 22, and at pg. 16, ln. 5-24. Claim 1 further recites "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 7- pg. 16, ln. 24.

Dependent claim 2 recites "means for calculating the real time clock value at the first instance by adding the time difference between the first instance and the identified instance to the real time clock value at the identified instance to obtain the real time clock value for the first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 7 – pg. 16, ln. 24.

Independent claim 16 recites a "means for receiving a transmitted identification of a real time clock value and an identification of a first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 - pg. 16, ln. 24. Claim 16 further recites "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

Claims 34 recites a "means for reading a real time clock at an identified local instance of the common time reference," and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 14, ln. 31 – pg. 15, ln. 22, and at pg. 16, ln. 5-24. Claim 34 also recites a "means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance," and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 7-

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pg. 16, ln. 24. Claim 34 further recites a "means for receiving a transmitted identification of a distal real time clock value and an identification of a distal first instance," and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24. In addition, claim 34 recites a "means for determining, a distal real time clock value current at a local second instance of the common time reference" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

Independent claim 35 recites "means for reading a real time clock at an identified local instance of the common time reference" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 14, ln. 31 – pg. 15, ln 2:, and at pg. 16, ln. 5-24. Claim 35 also recites "means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 7- pg. 16, ln. 24. Claim 35 further recites "means for receiving a transmitted identification of a distal real time clock value and an identification of a distal first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24. In addition, claim 35 recites "means for determining, a distal real time clock value current at a local second instance by adding the time difference between the received distal first instance and the second local instance to the received distal real time clock value" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

Independent claim 36 recites a "means for reading a local real time clock at an identified local instance of the common time reference" and the structure relating to this means is disclosed

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in Figure 7 and discussed in the substitute specification at pg. 14, ln. 31 – pg. 15, n 22, and at pg. 16, ln. 5-24. Claim 36 further recites "means for calculating the local real time c ock value at a first local instance by adding the time difference between the first local insta ice and the identified local instance to the local real time clock value at the identified instance t o obtain the local real time clock value for the first instance" and the structure relating to th is means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 15-2: . Claim 36 further recites "means for transmitting an identification of the local real time cloc value of a first instance and an identification of the local first instance" and the structure rel ting to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 1 , ln. 7- pg. 16, ln. 24. Claim 36 also recites a "means for receiving a transmitted identificatio of a distal real time clock value and an identification of a distal instance" and the structure rel ting to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, n. 24 – pg. 16, ln. 24. In addition, claim 36 recites "means for determining that the current dist l real time clock value is the received distal real time clock value when the distal instance of th e common time reference occurs locally" and the structure relating to this means is disclosed in F gure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

Independent claim 37 recites "means for reading or writing a real time clock at an identified instance of the common time reference" and the structure relating to thi s means is disclosed in Figure 7 and discussed in the substitute specification at pg. 14, ln. 31 – p . 15, ln 22 and at pg. 16, ln. 5-24 of the substitute specification. Claim 37 recites "means for t ansmitting an identification of the real time clock value of a first instance and an identification of the first instance" and the structure relating to this means is disclosed in Figure 7 and discu sed in the substitute specification at pg. 15, ln. 7- pg. 16, ln. 24. Claim 37 further recites " neans for

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receiving a transmitted identification of a real time clock value and an identification of a first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

Independent claim 40 recites "means for reading a real time clock at an identified instance of the common time reference" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 14, ln. 31 – pg. 15, ln 22, and at pg. 16, ln. 5-24. Claim 40 also recites "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 7- pg. 16, ln. 24. Claim 40 further recites "means for receiving the transmitted identification of the real time clock value at the first instance and the identification of the first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24. Claim 40 further recites "means for determining, at a second instance, a current real time clock value" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

Independent claim 41 recites "means for obtaining a clock value at an identified instance of the common time reference" and support for this is found in Figure 7 and in the substitute specification at pg. 14, ln. 31 – pg. 15, ln 22, and at pg. 16, ln. 5-24. Claim 41 also recites "means for transmitting an identification of a first instance of the common time reference and an identification of a clock value that is valid at the first instance of the common reference" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 7- pg. 16, ln. 24.

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Independent claim 42 recites "means for receiving a transmitted identification of a clock value and an identification of a first instance of the common time reference" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24. Claim 42 additionally recites "means for determining a clock value, valid at a second instance of the common time reference, from the received identification of a clock value and the received identification of a first instance" and the structure relating to this means is disclosed in Figure 7 and discussed in the substitute specification at pg. 15, ln. 24 – pg. 16, ln. 24.

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VI. Grounds of Rejection to be Reviewed on Appeal

Claims 1, 2 6, 9, 13-15 stand rejected under 35 U.S.C § 102(e) as being anticipated by U.S. Patent No. 6,788,656 to Smolentzov *et al.* ("Smolentzov"). Claims 16, 17, 2[illegible], 31-35 and 37-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smolentzov. Claims 7, 8, 10-12 and 23-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smolentzov in view of "Bluetooth: A new radio interface providing ubiquitous connectivity," Vehicular Technology Conference Proceedings, VTC 2000-Spring Tokyo, IEEE 5 st, *Jaap C. Haartsen*, p 107 ("Haartsen-article"). Claims 3-5, 18-21 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smolentzov in view of GB Patent No. 2,278,519 to Geller *et al.* ("Geller"). Claims 41-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,574,266 to Haartsen ("Haartsen-patent"). The rejection of claims 1-44 is being appealed.

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VII. Argument

The discussion below, unless otherwise noted, addresses the rejected independent claims 1 and 16, 34-44. The Appellants respectfully request that the rejection of the remaining dependent claims 2-15 and 17-33 be reversed for at least the reasons supporting reversal of the rejection of the independent claims from which they depend and for the additional limitations recited therein.

A. The Feature "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance" Is Not Disclosed By Smolentzov.

As noted above, claims 1-15, 34-38, and 40 stand rejected as being anticipated or as being obvious in view of Smolentzov, either alone or in combination with Haartsen-article, Geller and/or Haartsen-patent. Independent claims 1, 34-38, and 40 all recite a "means for transmitting..." similar to the means recited in claim 1, discussed below, and therefore are not anticipated or rendered obvious for the reasons supporting claim 1.

1. Smolentzov Fails To Disclose the "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance" as Recited in Independent Claim 1.

Independent claims 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by Smolentzov. In particular, the Examiner has argued that Figure 14 illustrates the structure for the "means for reading..." and the "means for transmitting an identification...." (Final Office Action Mailed May 3, 2005, pg. 4). The Examiner also indicated that Smolentzov is being construed as transmitting a real time value at an instance in time. (Final Office Action Mailed May 3, 2005, pg. 3) Appellants respectfully submit, however, that the Final Office Action's arguments fail to address the issue at hand. Claim 1 recites "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance." (emphasis added).

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Therefore, the issue is not whether Smolentzov discloses transmitting an identification of a real time value in an instance. Rather the question is whether Smolentzov discloses transmitting the identification of the real time value for a first instance and the identification of the first instance. Applicants respectfully submit that Smolentzov does not.

Smolentzov explains that a BPP 101 (a radio unit) establishes a link by transmitting inquire signals that include the identity and its realtime_clock. (Smolentzov, C. 5, L. 53-58). The BRFPs (a control node) in radio range of the BPP 101 respond by transmitting acknowledge signals that include their identity and realtime_clocks. (Smolentzov, C. 5, L. 58-61). One of the BRFPs is selected and linked to the BPP 101 and the realtime_clock of the BPP 101 is used to calculate the frequency hopping sequence. (Smolentzov, C. 5, L. 61 – C. 6, L 5). Thus, Smolentzov discloses synchronizing to the common time reference. Smolentzov also provides a method for synchronizing master and slave clocks to common reference time. (*See* Smolentzov, C. 9, L. 35 – C. 10, L. 45). However, Smolentzov fails to disclose transmitting a real time clock value and an identification of an instance of a common reference time when the real time clock value was read.

Thus, the Final Office Action has at most shown support for the fact that Smolentzov discloses a transmitter "arranged to synchronise to a common time reference having distinguishable instances" as recited in the preamble of claim 1. In other words, even under the Examiner's construction of instance, Smolentzov only discloses transmitting a real time clock value in an instance. However, independent claim 1 further recites a "means for reading a real time clock at an identified instance of the common time reference" and "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance." In comparison, Smolentzov simply transmits the real time clock value Thus, the

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identity of the real time clock value and the identification of the first instance it was read has no counterpart in Smolentzov. *See WMS Gaming, Inc. v. Int'l Gaming Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999) ("In a means-plus function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.). Therefore, Smolentzov fails to disclose the "means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance" as recited in claim 1.

2. The Remaining References of Record Do Not Correct the Deficiency in Smolentzov.

The Office Action combined Smolentzov with Haartsen-article and Geller to allegedly show additional features of the dependent claims. However, none of these references have been suggested as correcting the above noted deficiency in Smolentzov. Nor are the Applicants aware of anything in these references that discloses, suggests or teaches the recited features of claim 1 as above. Therefore, for at least the above reason, Smolentzov, alone or in combination with Haartsen-article, Geller and/or the Haartsen-patent, fails to disclose, suggest or teach at least one limitation of claims 1-15, 34-38, and 40. Accordingly, the rejection of claims 1-15, 34-38, and 40 should be reversed.

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B. The Feature "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance" is Not Inherently Disclosed By Smolentzov.

Claims 16-36, and 39 recite a feature similar to the feature "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance" recited in independent claim 16. The Examiner argues that while Smolentzov does not disclose a receiver, a receiver is inherent in the disclosure of Smolentzov. (*See* Final Office Action of May 3, 2005, pg. 5). Appellants respectfully submit that even if the Examiner is correct, there is still no support for Smolentzov inherently disclosing the above recited feature. As will be discussed below, Smolentzov fails to disclose the "means for receiving a transmitted ... identification of a first instance" recited in Smolentzov. As Smolentzov fails to disclose the reception of the identification, Smolentzov necessarily fails to disclose the use of the identification as well. Therefore, at least one feature of claims 17-36 and 39 is not disclosed by Smolentzov for the reasons addressed below with respect to claim 16.

1. The "means for receiving a transmitted identification of a real time clock value and an identification of a first instance" as Recited in Independent Claim 16 is Not Inherently Disclosed by Smolentzov.

As the Office Action admits (*see* Final Office Action of May 3, 2005, pg. 5), Smolentzov fails to disclose a receiver. However, the Examiner argues that a receiver would be inherently required in the system of Smolentzov. Even if it is assumed that the Examiner is correct, claim 16 recites a "means for receiving a transmitted identification of a real time clock value and an identification of a first instance." As noted above, however, Smolentzov fails to disclose, suggest or teach the transmitting of a real time clock value along with an identification of an

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instance of a common reference time when the real time clock value was read. Instead, Smolentzov discloses a method of keeping the common reference time up to date by transmitting a time value from a clock in a master and allowing the receiving devices to add an offset to its clocks to synchronize the two clocks. (*See* Smolentzov, Fig. 9 and 10 and Col. 9, L. 35 – C. 11, L. 12).

As Smolentzov fails to disclose transmitting the real time clock value along with the identification of the instance the real time clock value was read, Smolentzov necessarily fails to disclose receiving the real time clock value along with the identification of the instance the real time clock value was read. Nor would such receipt be inherent. As Smolentzov makes plain, the common time reference can be kept synchronized by simply transmitting a time value in a first instance from a master and letting the slave receive the time value and add an offset to their own time value to synchronize the two time values. (Smolentzov, Fig 10 and Col. 10, L. 46 – Col. 11, L. 12). Therefore, as Smolentzov doesn't actually disclose a receiver and the methods disclosed by Smolentzov do not require "a real time clock value and an identification of a first instance," Smolentzov does not inherently include the "means for receiving a transmitted identification of a real time clock value and an identification of a first instance."

2. The "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance" as Recited in Independent Claim 16 is Not Inherently Disclosed, Suggested or Taught by Smolentzov.

Claim 16 further recites "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance." As noted above, Smolentzov does not actually disclose receiving a real time clock value along with an identification of an instance when the real time value was read. However, the "means for determining a real time clock value...' would not

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function without first receiving the real time clock value and along with an identification of an instance. Thus, as Smolentzov doesn't disclose a receiver with a "means for receiving a transmitted identification of a real time clock value and an identification of a first instance," it is logically impossible for Smolentzov to disclose a "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance." In other words, as Smolentzov doesn't disclose the means for receiving the real time clock value and the received identification of a first instance," Smolentzov cannot fairly be argued to inherently disclose the "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance."

Nor would either means be inherent. Plainly, the sending of a time in a first instance and using the time in a second instance will allow Smolentzov to function. Thus, the receiving of an identification of an instance that a real time clock value was obtained along with the value of a real time clock is not a necessary part of Smolentzov. Simply providing a time without more is consistent with Smolentzov (and Bluetooth) and there has been no support provided for why Smolentzov should inherently include something it does not require or discuss.

3. The Remaining References of Record Do Not Correct the Deficiency in Smolentzov

The Final Office Action has not suggested that any of the other references of record correct this deficiency in Smolentzov, thus the references of record fail to disclose all the limitations of claim 16. As not all the limitations of claim 16 are disclosed, suggested or taught by the references of record, the references of record do not support a *prima facie* case of obviousness. Claims 17-36,and 39 all include a similar feature, thus for at least the above reason Smolentzov also fails to disclose, suggest or teach at least one limitations of these pending

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claims. Accordingly, the references of record also fail to support a *prima facie* case of obviousness for claims 17-36, and 39. Accordingly, the rejection of claims 16-36 ar d 39 should be reversed.

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C. **The Step "transmitting an identification of the real time clock value for a first instance and an identification of the first instance" as Recited in Claim 38 is Not Disclosed, Suggested or Taught By Smolentzov, Thus Smolentzov Does Not Support a *Prima Facie* Case of Obviousness.**

As noted above, independent claim 38 is not anticipated or rendered obvious for the reasons that claim 1 is not anticipated nor rendered obvious. In addition, claim 38 recites performing the step of "transmitting an identification of the real time clock value for a first instance and an identification of the first instance." The Final Office Action is basically arguing that features of claim 1 are inherently found in Smolentzov. While this argument lacks any support, Appellants respectfully assert it becomes indefensible with respect to claim 38.

As an initial matter, Smolentzov makes no mention of an identification of a first instance. Therefore, even if Smolentzov was somehow interpreted as inherently having the components and configuration capable of doing what is claimed in Figure 1, for example, there is still no discussion in Smolentzov that discloses an actual transmitting of "an identification of the real time clock value for a first instance and an identification of the first instance" as recited in independent claim 38. Nor would there be any motivation to modify Smolentzov to do so because, as Smolentzov doesn't disclose using the identification of the first instance, here would be no reason to transmit such an identification of the first instance. In other words, Smolentzov cannot be fairly said to disclose a step of transmitting a value that Smolentzov fails to disclose recording in the first place. Plainly, the system of Smolentzov can be used with other methods. Accordingly, for this additional reason Smolentzov fails to disclose, suggest or teach all the limitations of independent claim 38. Therefore, for this additional reason it is respectfully requested that the rejection of claim 38 under 35 U.S.C. § 103(a) be reversed.

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D. The Features "receiving a transmitted identification of a real time clock value and an identification of a first instance of the common reference" and "determining a real time clock value current at a second instance of the common time reference" as Set Forth in Independent Claim 39 are Not Disclosed, Suggested or Taught By Smolentzov, Thus Smolentzov Does Not Support a *Prima Facie* Case of Obviousness.

As noted above, claim 39 is not obvious in view of Smolentzov for at least the reasons supporting the nonobviousness of independent claim 16. For example, Smolentzov fails to disclose a "means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance." Appellants further note that even if it could somehow be argued that the receiver of claim 16 was inherently disclosed by Smolentzov, which as noted above, cannot be fairly done, the method of claim 39 is plainly not inherently disclosed by Smolentzov.

As an initial matter, there is no discussion of such a method of transmitting an identification of a first instance so it is hard to understand how a method of using the identification can be enabled. In other words, as neither Smolentzov nor any of the other references of record disclose transmitting an identification of the instance along with a real time clock value recorded in that instance, there is no support for receiving the identification of the instance. Instead, at most, the references of record disclose "synchronising the receiver device to a time reference having distinguishable instances shared in common with the transmitter and receiver." However, claim 39 further recites "receiving a transmitted identification of a real time clock value and an identification of a first instance of the common reference" and there is no counterpart to this step in Smolentzov (or the references of record).

In addition, as the references of record do not actually disclose, suggest or teach the step of "receiving a transmitted identification of a real time clock value and an identification of a first instance of the common reference," it is difficult to understand how the references of record can

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be argued as disclosing the use of the identification in any way. Claim 39 further recites "determining a real time clock value current at a second instance of the common time reference, corresponding to the received real time clock value corrected in accordance with the time difference between the first and second instances, if any." To argue that Smolentzov (or any of the references of record, for that matter) discloses, suggests or teaches this requires a logical leap that is unsupported. In other words, as Smolentzov doesn't disclose the step of receiving a real time clock value and an identification of a first instance as recited in claim 39, Smolentzov logically cannot disclose a use of that real time clock and the identification in a second step.

Therefore, for these additional reasons, it is respectfully submitted that independent claim 39 in nonobvious over Smolentzov (and the references of record) and it is requested that the rejection of claim 39 be reversed.

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E. **The Haartsen-patent Fails to Inherently Disclose, Suggest or Teach the Features of Claims 41-44, Thus the Haartsen-patent Does Not Support a *Prima Facie* Case of Obviousness.**

Claims 41-44 recite a clock rather then a real time clock. The Examiner has suggested that what Haartsen-patent discloses is equivalent to what is claimed, citing to Column 5, Lines 4-23. (Final Office Action of May 3, 2005, pg. 11-12). In other words, the Final Office Action seems to be suggesting that the features of claims 41-44 are inherently disclosed by Haartsen-patent. Turning to Haartsen-patent, Column 5, Lines 4-23, the following is disclosed:

> 5
>
> suitable synthesizer **424**. The frequencies selected for the synthesizer and other aspects of the transceiver **400** are determined by control signals provided by a controller **426**.
>
> In a FH system that can be used for setting up ad hoc connections, it is necessary to ensure that the units hop synchronously and in phase in order for communication to be maintained: the TX hop of one unit must be the RX hop of the other unit or units, and vice versa. The hopping scenario may be determined by the identity and system clock of one of the communicating devices (which is designated as the master), as is done in the Bluetooth system. That is to say, the hopping sequence is determined by the identity of the master unit, and the phase in the hopping sequence is determined by the system clock of the master unit. All other devices (slaves) that are to participate in the communication session must use the same master identity and synchronize to the system clock of the master unit in order to be synchronized to and in phase with the FH sequence. In principle, any unit can be designated as a master. The system clocks in the units are typically free-running; it is only during a communication session that respective clock offsets are temporarily added in order to adjust the slave devices' clocks to the master device's clock.

This portion of Haartsen-patent, however, fails to disclose the transmission of a real time clock value and an identification of an instance when the real time clock value was read. Instead, this

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portion merely discloses that a time value and the identify of the source of the time value (e.g. the master) may be provided.

However, claim 41 recites a "means for transmitting an identification of a first instance of the common time reference and an identification of a clock value that is valid at the first instance of the common reference." The provision of a time clock value from a master along with the identification that the signal is being provided by the master is not the same as a "means for transmitting an identification of a first instance of the common time reference and an identification of a clock value that is valid at the first instance of the common reference." Independent claim 42 further recites a "means for receiving a transmitted identification of a clock value and an identification of a first instance of the common time reference" and a "means for determining a clock value, valid at a second instance of the common time reference, from the received identification of a clock value and the received identification of a first instance." As Haartsen-patent fails to even mention these features, Haartsen-patent cannot fairly be said to inherently disclose, suggest or teach the features of claims 41 or 42.

In addition, claims 43 and 44 recite methods. Thus, even if Haartsen-patent could somehow be argued to inherently disclose the structure recited in claims 41 and 42, there is still no disclosure in Haartsen-patent relating to the methods recited. For example, independent claim 43 recites a method that includes a "synchronising" step and the step of "transmitting an identification of a clock value that is valid at a first instance and an indication of the first instance." Independent claim 44 recites a method that includes a "synchronising" step and the step of "receiving a transmitted identification of a clock value that is valid at a first instance and an indication of the first instance." Haartsen-patent provides no discussion at all of transmitting an identification of the instance the clock value was taken as recited in independent claim 43 nor

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is there any reason to do so. Nor does Haartsen-patent disclose using the identification of the instance as recited in independent claim 44. Instead, Haartsen-patent at most discloses the "synchronising" step.

Therefore, Appellants respectfully submit that the Haartsen-patent reference fails to disclose, suggest or teach at least one limitation of claims 41-44. Accordingly, the rejection of claims 41-44 under 35 U.S.C. § 103(a) should be reversed.

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VIII. Conclusion

The rejections contained in the Final Office Action of May 3, 2005 should be reversed for at least the reasons recited above. Reversal of the rejections is requested.

Respectfully submitted,

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CLAIMS APPENDIX

1. A transmitter for transmitting in a network comprising the transmitter and at least one receiver, wherein the transmitter is arranged to synchronise to a common time reference having distinguishable instances, the transmitter comprising:

means for reading a real time clock at an identified instance of the common time reference; and

means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance.

2. A transmitter as claimed in claim 1, further comprising means for calculating the real time clock value at the first instance by adding the time difference between the first instance and the identified instance to the real time clock value at the identified instance to obtain the real time clock value for the first instance.

3. A transmitter as claimed in claim 1, wherein the first instance is in the past at the moment of transmission.

4. A transmitter as claimed in claim 1, wherein the first instance is in the future at the moment of transmission.

5. A transmitter as claimed in claim 1, wherein the identified instance and the first instance are one and the same.

6. A transmitter as claimed in claim 1, further comprising a synchronisation controller for maintaining the common time reference.

7. A transmitter as claimed in claim 1, arranged to communicate in accordance with the Bluetooth Standard, wherein Link Level synchronization provides the common time reference.

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8. A transmitter as claimed in claim 1, arranged to communicate in accordance with the Bluetooth Standard, wherein the identification of the real time clock value and the identification of the first instance are transmitted as a Link Manager Message.

9. A transmitter as claimed in claim 1, arranged to communicate in accordance with the Bluetooth Standard, wherein the instances of the common time reference are synchronous with the frequency hopping of the network.

10. A transmitter as claimed in claim 1, wherein the first instance is identified by using a frame/slot number.

11. A transmitter as claimed in claim 10, wherein the occurrence of the instance within the identified slot/frame is predetermined.

12. A transmitter as claimed in claim 10, wherein occurrence of the instance within the identified slot/frame is determined by the transmission of a message.

13. A transmitter as claimed in claim 1, further comprising an interface for connection to a Real Time Clock or Real Time application.

14. A transmitter as claimed in claim 1 arranged for asynchronous transmission of the identification of the real clock value and of the identification of the first instance.

15. A media device such as a speaker, microphone, screen, camera or computer comprising a transmitter as claimed in claim 1.

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16. A receiver for receiving in a network comprising at least the receiver and a transmitter, wherein the receiver is arranged to synchronise to a common time reference having distinguishable instances, the receiver comprising:

means for receiving a transmitted identification of a real time clock value and an identification of a first instance; and

means for determining a real time clock value, current at a second instance from the received identification of a real time clock value and the received identification of a first instance.

17. A receiver as claimed in claim 16, wherein the real time clock value is the received value, if necessary, corrected in accordance with the time difference between the first and second instances.

18. A receiver as claimed in claim 16, wherein the first instance is in the past at the moment of reception.

19. A receiver as claimed in claim 16, wherein the real time clock value determination is by calculation in which the time difference between the second and first instances is added to the received value of the real time clock.

20. A receiver as claimed in claim 16, wherein the first instance is in the future at the moment of reception.

21. A receiver as claimed in claim 16, wherein the means for determining determines that the current real time clock value is the received value when the second instance of the common time reference occurs, the second and first instances being one and the same.

22. A receiver as claimed in claim 16, further comprising a synchronisation controller for maintaining the common time reference.

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23. A receiver as claimed in claim 22, wherein the synchronisation controller comprises correlation means for identifying access codes preceding the payload of data packets.

24. A receiver as claimed in claim 23, wherein the synchronisation to the common time reference is updated as each packet is received.

25. A receiver as claimed in claim 22, wherein the synchronization controller provides bit-level synchronisation of the common time reference.

26. A receiver as claimed in claim 16, arranged to communicate in accordance with the Bluetooth Standard, wherein Link Level synchronization provides the common time reference.

27. A receiver as claimed in claim 16, arranged to communicate in accordance with the Bluetooth Standard, wherein the identification of the real time clock value and the identification of the first instance are transmitted as a Link Manager Message.

28. A receiver as claimed in claim 16, arranged to communicate in accordance with the Bluetooth Standard, wherein the first instance is identified by using a frame/slot number.

29. A receiver as claimed in claim 28, wherein the occurrence of the instance within the identified slot/frame is predetermined.

30. A receiver as claimed in claim 28, wherein occurrence of the instance within the identified slot/frame is determined by the reception of a message.

31. A receiver as claimed in claim 16, further comprising an interface for connection to a Real Time Clock or Real Time application.

32. A receiver as claimed in claim 16 arranged for asynchronous transmission of the identification of the real clock value and of the identification of the first instance.

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33. A media device such as a speaker, microphone, screen, camera or computer comprising a receiver as claimed in claim 16.

34. A transceiver for operating in a network, wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading a real time clock at an identified local instance of the common time reference; and

means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance; and additionally comprising:

means for receiving a transmitted identification of a distal real time clock value and an identification of a distal first instance; and

means for determining, a distal real time clock value current at a local second instance of the common time reference.

35. A transceiver for operating in a network, wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading a real time clock at an identified local instance of the common time reference; and

means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance; and additionally comprising:

means for receiving a transmitted identification of a distal real time clock value and an identification of a distal first instance; and

means for determining, a distal real time clock value current at a local second instance by adding the time difference between the received distal first instance and the second local instance to the received distal real time clock value.

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36. A transceiver for operating in a network, wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading a local real time clock at an identified local instance of the common time reference; and

means for calculating the local real time clock value at a first local instance by adding the time difference between the first local instance and the identified local instance to the local real time clock value at the identified instance to obtain the local real time clock value for the first instance; and

means for transmitting an identification of the local real time clock value of a first instance and an identification of the local first instance; and additionally comprising:

means for receiving a transmitted identification of a distal real time clock value and an identification of a distal instance; and

means for determining that the current distal real time clock value is the received distal real time clock value when the distal instance of the common time reference occurs locally.

37. A transceiver for operating in a network, wherein the transceiver is arranged to synchronise to a time reference common to the network having distinguishable instances, the transceiver comprising:

means for reading or writing a real time clock at an identified instance of the common time reference;

means for transmitting an identification of the real time clock value of a first instance and an identification of the first instance; and

means for receiving a transmitted identification of a real time clock value and an identification of a first instance.

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38. A method of providing real time clock information from a transmitter device to a receiver device, comprising:

synchronising the transmitter device to a time reference having distinguishable instances shared in common, with the transmitter and receiver obtaining a real time clock value at an identified instance of the common time reference; and

transmitting an identification of the real time clock value for a first instance and an identification of the first instance.

39. A method of receiving real time clock information transmitted from a transmitter device to a receiver device, comprising:

synchronising the receiver device to a time reference having distinguishable instances shared in common with the transmitter and receiver;

receiving a transmitted identification of a real time clock value and an identification of a first instance of the common reference; and

determining a real time clock value current at a second instance of the common time reference, corresponding to the received real time clock value corrected in accordance with the time difference between the first and second instances, if any.

40. A network comprising a transmitter device and at least one receiver device, wherein the transmitter and receiver devices are synchronized to a common time reference having distinguishable instances such that when an instance is measurable at one device there is simultaneously an identifiably corresponding instance measurable at the other device, the transmitter device comprising:

means for reading a real time clock at an identified instance of the common time reference; and

means for transmitting an identification of the real time clock value for a first instance and an identification of the first instance,

and the receiver device comprising:

means for receiving the transmitted identification of the real time clock value at the first instance and the identification of the first instance; and

means for determining, at a second instance, a current real time clock value.

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41. A transmitter for transmitting in a low power frequency hopping network, the low power frequency hopping network comprising the transmitter and at least one receiver, wherein the transmitter is arranged to synchronise to a common time reference having distinguishable instances, the transmitter comprising:

means for obtaining a clock value at an identified instance of the common time reference; and

means for transmitting an identification of a first instance of the common time reference and an identification of a clock value that is valid at the first instance of the common reference.

42. A receiver for receiving in a low power frequency hopping network, the low power frequency hopping network comprising at least the receiver and a transmitter, wherein the receiver is arranged to synchronise to a common time reference having distinguishable instances, the receiver comprising:

means for receiving a transmitted identification of a clock value and an identification of a first instance of the common time reference; and

means for determining a clock value, valid at a second instance of the common time reference, from the received identification of a clock value and the received identification of a first instance.

43. A method of providing clock information from a transmitter to a receiver in a low power frequency hopping network, the method comprising:

synchronising the transmitter to a time reference, having distinguishable instances, shared in common with the transmitter and receiver;

obtaining a clock value at an identified instance of the common time reference; and

transmitting an identification of a clock value that is valid at a first instance and an indication of the first instance.

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44. A method of receiving clock information transmitted from a transmitter to a receiver in a low power frequency hopping network, the method comprising:

synchronising the receiver to a time reference, having distinguishable instances, shared in common with the transmitter and receiver;

receiving a transmitted identification of a clock value that is valid at a first instance and an indication of the first instance; and

determining a clock value, valid at a second instance of the common time reference, corresponding to the received clock value corrected in accordance with the time difference between the first and second instances, if any.

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EVIDENCE APPENDIX

-- NONE --

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RELATED PROCEEDINGS APPENDIX

-- NONE --

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